UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,985	09/26/2001	Andrew Fertlitsch	SLA 1004	2966

7590 09/13/2005

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EXAMINER
DULANEY, BENJAMIN O

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Office Action Summary		Application No.	Applicant(s)
			09/964,985	FERTLITSCH ET AL.
			Examiner	Art Unit
			Benjamin O. Dulaney	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. 6/31 2002 , 9/26/01, 4/29/2003

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

 The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-13, 15, 16, 18, 19, 23-25 are rejected under 35 U.S.C. 102(b) as

being anticipated by U.S. Patent 5,287,194 by Lobiondo ("Lobiondo").

Regarding claim 1, Lobiondo teaches a method for distributing a print task

among a plurality of printing devices, said method comprising: initiating a print

task (column 3, lines 56-60); transmitting said print task to a print system

component (column 3, lines 16-18); dividing and distributing said print task

among a plurality of printing devices with said print system component (column 3,

lines 41-50); and providing load-balancing between said plurality of printing

devices (column 2, lines 39-42; column 4, lines 16-19).

Regarding claim 2, Lobiondo teaches the method of claim 1 wherein said

dividing and said distributing comprise job splitting (column 4, lines 54-57;

column 4, lines 16-19).

Regarding claim 3, Lobiondo teaches the method of claim 1 wherein said

dividing and said distributing comprise copy splitting (column 5, lines 45-62).

Regarding claim 4, Lobiondo teaches load-balancing comprising obtaining printer capability data from said plurality of printing devices (column 3, lines 41-50).

Regarding claim 5, Lobiondo teaches the method of claim 4 wherein said printer capability data comprises a rate at which at least one of said plurality of printing devices prints pages (column 3, line 68 - column 4, line 3).

Regarding claim 6, Lobiondo teaches the method of claim 1 wherein said dividing, said distributing and said providing load-balancing comprise dividing said print task among said plurality of printing devices according to the speed of each printing device (column 4, lines 52-54).

Regarding claim 7, Lobiondo teaches querying at least one printing device to determine at least one of its capabilities (column 4, lines 16-64).

Regarding claim 8, Lobiondo teaches querying at least one printing device to determine its availability (column 4, lines 16-64).

Regarding claim 9, Lobiondo teaches the method of claim 1 wherein said dividing, said distributing and said providing load-balancing comprise dividing said print task, when said print task comprises multiple copies of a print job, into sets of copies of said print job, each of said sets comprising a number of copies proportional to the number of pages per minute (PPM) each printer can print (column 4, lines 58-64; column 5, lines 45-62).

Regarding claim 10, Lobiondo teaches the method of claim 1 wherein said dividing, said distributing and said providing load-balancing comprise dividing said print task, when said print task comprises multiple and distinct print jobs, into

sets of distinct print jobs, each of said sets comprising a number of pages proportional to the number of pages per minute (PPM) each printer can print (column 4, lines 58-64; column 5, lines 9-12).

Regarding claim 11, Lobiondo teaches a method for distributing a print task among a plurality of printing devices, said method comprising: initiating a print task (column 3, lines 56-60); transmitting said print task to a print system component (column 3, lines 16-18); determining said printing devices' capabilities (column 3, line 68 – column 4, line 3); and dividing and distributing said print task among said plurality of printing devices in proportion to the capabilities of said printing devices, using said print system component (column 4, lines 46-50).

Regarding claim 12, Lobiondo teaches the method of claim 11 wherein said determining comprises querying a local printer through a system bus (column 4, lines 16-64).

Regarding claim 13, Lobiondo teaches the method of claim 11 wherein said determining comprises querying a network printer using a network communications protocol (column 4, lines 16-64).

Regarding claim 15, Lobiondo teaches the method of claim 11 wherein said determining comprises accessing a printer attribute registry (column 3, line 68 – column 4, line 3).

Regarding claim 16, Lobiondo teaches a print system component comprising a print processor (column 3, lines 41-50).

Regarding claim 18, Lobiondo teaches a method for distributing a print task among a plurality of printing devices, said method comprising: initiating a

print task (column 3, lines 56-60); transmitting said print task to a print system

component (column 3, lines 16-18); determining said printing devices' capabilities

(column 3, line 68 – column 4, line 3); and dividing and distributing said print task

among said plurality of printing devices in proportion to the throughput of each of

said printing devices, using said print system component (column 4, lines 46-64).

Regarding claim 19, Lobiondo teaches the method of claim 18 wherein

said throughput comprises a printer's speed in PPM (column 4, lines 58-64).

Regarding claim 23, Lobiondo teaches a printing system component for

distributing a print task among a plurality of printing devices, said component

comprising: a determiner for determining printing device capabilities (column 3,

line 68 – column 4, line 3); a divider for dividing a print task into print sets, said

sets being proportioned according to the capabilities of each printing device in

said plurality of printing devices (column 3, lines 41-50); and a distributor for

distributing said sets to each printing device in said plurality of printing devices

(column 4, lines 46-50).

Regarding claim 24, Lobiondo teaches a computer-readable medium

comprising instructions for distributing a print task among a plurality of printing

devices, said instructions comprising the acts of: initiating a print task (column 3

lines 56-60); transmitting said print task to a print system component (column 3,

lines 16-18); determining said printing devices' capabilities (column 3, line 68 –

column 4, line 3); and dividing and distributing said print task among said plurality

of printing devices in proportion to the capabilities of said printing devices, using

said print system component (column 4, lines 46-48).

Regarding claim 25, Lobiondo teaches a computer data signal embodied

in an electronic transmission, said signal having the function of distributing a print

task among a plurality of printing devices, said signal comprising instructions for:

initiating a print task (column 3 lines 56-60); transmitting said print task to a print

system component (column 3, lines 16-18); determining said printing devices'

capabilities (column 3, line 68 – column 4, line 3); and dividing and distributing

said print task among said plurality of printing devices in proportion to the

capabilities of said printing devices, using said print system component (column

4, lines 46-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

2.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent 5,287,194 by Lobiondo as applied to claim 11 above, and further in

view of U.S. Patent 5,982,996 by Snyders ("Snyders").

Lobiondo does not teach a method of determining comprising querying a

print driver.

Snyders does teach a method of determining comprising querying a print

driver (column 7, line 66 – column 8, line 21).

Snyders and Lobiondo are combinable because they are from the same art of printer scheduling.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Snyders to determine printing capabilities by querying a print driver. The motivation for doing so would have been to retrieve necessary information to print efficiently.

3.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo as applied to claim 11 above, and further in view of U.S. Patent 6,049,394 by Fukushima ("Fukushima").

Lobiondo does not teach estimating the capability of some of said plurality of printing devices.

Fukushima does teach estimating the capability of some of said plurality of printing devices (column 17, lines 1-9).

Fukushima and Lobiondo are combinable because they are from the same art of printer networking.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Fukushima to estimate capabilities in order to determine if a printing speed can be followed (column17, line 8).

4.   Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo as applied to claim 18 above, and further in view of U.S. Patent 5,128,878 by Gore et al. ("Gore").

Regarding claim 20, Lobiondo does not teach a determination of a printing device's disk storage capacity.

Gore does teach a determination of a printing device's disk storage capacity (column 6, lines 65-66).

Gore and Lobiondo are combinable because they are from the same art of printer networking.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Gore to determine a printing devices storage capacity in order to improve the overall performance of the system (column 7, lines 9-10).

Regarding claim 21, Lobiondo does not teach an analysis of a printing device's rasterization pipeline.

Gore does teach an analysis of a printing device's rasterization pipeline (column 7, lines 5-17).

Gore and Lobiondo are combinable because they are from the same art of printer networking.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lobiondo by Gore to analyze a printing device's rasterization pipeline in order to improve the overall performance of the system (column 7, lines 9-10).

Regarding claim 22, Lobiondo does not teach an evaluation of alternative

rasterization methods and a selection of the fastest method for a specific print

task.

Gore does teach an evaluation of alternative rasterization methods and a

selection of the fastest method for a specific print task (column 7, lines 5-17).

Gore and Lobiondo are combinable because they are from the same art of

printer networking.

It would have been obvious to a person of ordinary skill in the art at the

time the invention was made to modify Lobiondo by Gore to evaluate alternative

rasterization methods in order to improve the overall performance of the system

(column 7, lines 9-10).

Conclusion

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Benjamin O. Dulaney whose telephone

number is (571) 272-2874. The examiner can normally be reached on Monday -

Friday (9am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The

fax phone number for the organization where this application or proceeding is

assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
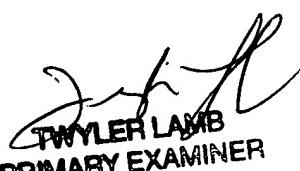
TWYLER LAMB
PRIMARY EXAMINER